



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

51

| APPLICATION NO.                                       | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/355,149  | 03/07/2000  | ULF ASSMUS           | 2345/87             | 6071             |
| 26646   | 7590        | 07/29/2004           | EXAMINER            |                  |
| KENYON & KENYON<br>ONE BROADWAY<br>NEW YORK, NY 10004 |             |                      | HARVEY, DAVID E     |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2614                | 12               |
| DATE MAILED: 07/29/2004                               |             |                      |                     |                  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |               |
|------------------------------|-----------------|---------------|
| <b>Office Action Summary</b> | Application No. | Applicant(s)  |
|                              | 09/355,149      | ASSMUS ET AL. |
|                              | Examiner        | Art Unit      |
|                              | DAVID E HARVEY  | 2614          |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 4/5/2004.  
 2a) This action is FINAL.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-17 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-17 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

Art Unit: 2614

1. The disclosure, as originally filed appears to disclose three embodiments of invention; i.e. those of figure 1, figure 2, and figure 3 respectively. Independent claim 1 recites that a "data-independent clock" is "added" to the "transmited data" and therefor claim 1 (and dependent claims 2-9) all appear to be directed to the embodiment of figure 1 being that the figure 1 embodiment is the only embodiment to which such clock signals appear to be added.

2. Claims 1-9, 16, and 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The following is noted:

A) As noted in paragraph 1 above, claim 1 requires a "data-independent clock" to be added to "data transmitted using asynchronous data transmission technology". The specification as originally filed never indicates/explains how the recited "adding" process was accomplished; i.e. the packet nature of conventional asynchronous data transmission technology seems incompatible with the

transport of a clock signal. That is, from the disclosure, it is unclear how the recited "clock signal" is "added" to the "asynchronous" data. Clarification is required.

B) With respect to claims 16 and 17, it is not clear from the disclosure how one implements the recited "plus/zero/minus packing procedure". Clarification is required.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that

Art Unit: 2614

was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitao et al. [JP 6-303252].**

I. The Showing of Kitao et al.:

As shown in figure 3, Kitao et al. describes conventional transmitter "station" structure (@ 301) and conventional receiver "station" structure (@ 136) for conveying video and audio data through a conventional ATM transmission network. At the transmitter-side (@ 301):

a) Video and audio data are provided to an ATM cell/packet assembler (305) at a first source clock data rate;

b) The source clock is provided to a first countdown circuit (@ 302) and a network clock provided to a second countdown circuit whereby the phase/frequency of the source clock is referenced to the phase/frequency of the network clock (@ 304) to generate time stamp information, which time stamp

information is provided to the ATM cell/packet assembler (@ 305).

The assembled ATM cells/packets, comprising the audio and video data and the time stamp information, are then conveyed through the ATM network at the network clock rate to the receiver "station" location (@ 306). At the receiver "station" location (@ 306):

- a) The transmitted ATM cells/packets are received by an ATM cell/packet decomposition circuit (@ 307) at the network clock rate;
- b) The audio and video data are separated from the received ATM cells/packets (@ 307) and are clocked into a temporary buffer store (@ 308) at the network clock rate;
- c) The network clock and the separated time stamp information is provided to source clock circuitry (@ 310 to 314) in order to regenerate the source clock at its original phase/frequency; and

Art Unit: 2614

d) The regenerated source clock is used to clock the audio and video data from the temporary buffer store at the regenerated source clock phase/frequency.

The regenerated source clock and the clocked out audio and video data are supplied at respective outputs to control further processing thereof.

Claim 10 differs from the showing of Kitao et al. only in its use of the "studio" terminology.

The examiner maintains that it would have been obvious to one of ordinary skill in the art that the "station" locations described in Kitao et al. may comprise different TV studio locations station locations or, alternatively, one would recognize that said "station" locations fall within the meaning of the "studio" terminology as defined and used within applicant's own disclosure [note lines 9-15 on page 1 of applicant's disclosure.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Hessenmuller publication, entitled "High-quality video and audio signal transmission in broadband ISDN based on ATD".

Figure 6 of Hessemuller, like Kitao et al. discussed above (see paragraph 5), also illustrates notoriously well ATM receiver-side structure which includes a temporary memory (the "FIFO") for receiving and storing encoded audio and video data at the network clock rate and for outputting stored audio and video data at a regenerated source clock rate.

7. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitao et al. [JP 6-303252] for the same reasons that were set forth for claim 10 above.

8. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Hessenmuller publication, entitled "High-quality video and audio signal transmission in broadband ISDN based on ATD", for the same reasons that were set forth for claim 10 above.

Art Unit: 2614

9. Claim 1 is are rejected under 35 U.S.C. 103(a) as being unpatentable over conventional ATM transmission system technology as illustrated by Kitao et al. [JP 6-303252] or the Hessenmuller publication as discussed in paragraph 5 and 6 above, in view of either Chao et al. [US #5,204,882] or the IBM technical disclosure #NN9407401.

In conventional ATM networks, as illustrated in the showings of Kitao et al and Hessenmuller, it was necessary:

- a) To have regenerated, on the receiver side of the network, a "source clock" signal that is locked in phase/frequency to the "source clock" at which the audio and video data was provided on the transmitter side of the network; and
  
- b) To have provided a temporary storage medium on the receiver side of said ATM network to lock the transmitted audio and video data, received at the ATM network rate, back to the "source clock" as regenerated on said receiver side.

In said conventional ATM networks, as illustrated in the showings of Kitao et al and Hessenmuller, it was

Art Unit: 2614

notoriously well known to have regenerated the required "source clock" at the original "source clock" rate by using well known buffer fullness algorithms (as in figure 6 of Hessenmuller), using time stamps (as in figure 3 of Kitao et al), or using a mixture of both fullness and time stamps (as in figure 1 of Kitao et al).

Chao et al. and the IBM technical disclosure evidence an addition way of providing the required "source clock" regeneration. Namely, each of these references evidences that is was known to have transmitted the "source clock" signal itself, along with the data, through the ATM network either directly (as described in the IBM technical disclosure) or indirectly (as described in Chao et al.).

It would have been obvious to one of ordinary skill in the art to have utilized the techniques of source clock recovery described in Chao et al. and the IBM technical disclosure, i.e. the transmission of the source clock signal itself, as an alternative to the time stamp or fullness approaches that were described in Kitao et al and Hessenmuller given the fact that the transmission of the source clock itself represents an alternative and more

accurate way conveying and regenerating the required source clock to the receiver side of the ATM net work.

10. Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over conventional ATM transmission system technology as illustrated by Kitao et al. [JP 6-303252] or the Hessenmuller publication as discussed in paragraph 5 and 6 above, in view of either Chao et al. [US #5,204,882] or the IBM technical disclosure #NN9407401 for the same reason that was set forth for claim 1 above.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E HARVEY whose telephone number is (703) 305-4365. The examiner can normally be reached on M-F from 9AM to 6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller, can be reached on 703 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2614

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
DAVID E HARVEY  
Primary Examiner  
Art Unit 2614